L Number	r Hits		DB	Time stamp
2		<pre>@ @ad<=20010113 and 'dielectric layer' and 'hafnium' and 'lanthanum' and 'oxygen' and 'ion bombardment'</pre>		2002/12/24 08:3
		Ton Bombardment	EPO; JPO; DERWENT;	
4	29		IBM_TDB USPAT:	2002/12/24 08:3
		deposition' and 'hafnium' and 'oxygen' and	US-PGPUB;	2002/12/24 08:3
		'ion bombardment'	EPO; JPO;	
			DERWENT;	
7	62	@ad<=20010113 and 'dielectric' and	IBM_TDB USPAT:	2002/12/24 08:40
		'physical vapor deposition' and 'ion	US-PGPUB;	
		bombardment' same 'energy'	EPO; JPO;	
	*		DERWENT;	
8	120		IBM_TDB USPAT;	2002/12/24 08:40
		deposition' and 'ion bombardment' same	US-PGPUB;	2002/12/24 08:40
		'energy'	EPO; JPO;	
			DERWENT;	
9	14		IBM_TDB USPAT;	2002/12/24 08:53
		vapor deposition' and 'ion bombardment'	US-PGPUB;	2002/12/24 08:53
		same 'energy'	EPO; JPO;	
			DERWENT;	
10	2	@ad<=20010113 and 'lanthanum' and	IBM_TDB USPAT;	2002/12/24 08:41
		'physical vapor deposition' and 'ion	US-PGPUB;	2002/12/24 08:41
		bombardment' same 'energy'	EPO; JPO;	
			DERWENT;	
11	14	@ad<=20010113 and 'physical vapor	IBM_TDB USPAT;	2002/12/24 00 45
		deposition' same 'hafnium oxide'	US-PGPUB;	2002/12/24 08:45
	i		EPO; JPO;	
			DERWENT;	
12	0	@ad<=20010113 and 'hafnium' and 'physical	IBM_TDB USPAT;	2002/12/04 22 5
	^	vapor deposition' and 'ion bombardment'	US-PGPUB;	2002/12/24 08:54
		same 'energy' same '10 eV'	EPO; JPO;	
			DERWENT;	
13	0	@ad<=20010113 and 'hafnium' and 'electron	IBM_TDB USPAT;	2002/12/24 08:55
		beam evaporation' and 'ion bombardment'	US-PGPUB;	2002/12/24 08:55
		same '10 eV'	EPO; JPO;	
			DERWENT;	
14	4	@ad<=20010113 and 'hafnium' and 'electron	IBM_TDB USPAT;	2002/12/24 00 50
		beam evaporation' and 'ion bombardment'	US-PGPUB;	2002/12/24 08:59
i		and '10 eV'	EPO; JPO;	
			DERWENT;	
15	3	@ad<=20010113 and 'lanthanum' and	IBM_TDB USPAT;	2002/12/24 09:37
	į	'electron beam evaporation' and 'ion	US-PGPUB;	2002/12/24 09:37
		bombardment' and '10 eV'	EPO; JPO;	
			DERWENT;	
16	0	@ad<=20010113 and 'lanthanum' and	IBM_TDB USPAT;	2002/12/24 09:40
		'hafnium' same 'oxygen redical'	US-PGPUB;	2002/12/24 09:40
İ			EPO; JPO;	
	-		DERWENT;	
L7	0	@ad<=20010113 and 'lanthanum' and	IBM_TDB USPAT;	2002/12/24 09:40
	1	'hafnium' and 'oxygen redical'	US-PGPUB;	2002/12/24 09:40
			EPO; JPO;	
			DERWENT;	!
.8	0	@ad<=20010113 and 'lanthanum' and	IBM_TDB USPAT;	2002/12/24 02 12
			US-PGPUB;	2002/12/24 09:40
			EPO; JPO;	
			DERWENT;	
			IBM TDB	

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19	[2	2 @ad<=20010113 and 'lanthanum' and	USPAT;	2002/12/24 09:40
		'hafnium' and 'oxygen radical'	US-PGPUB;	
	1		EPO; JPO;	
			DERWENT;	
	-	//20/700\ 000	IBM_TDB	
-	69	9 (438/722).CCLS.	USPAT;	2002/06/25 14:31
			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
1.		/ / / / / / / / / / / / / / / / / / / /	IBM_TDB	
-	69	(("438/722").CCLS.) and @ad<=20010613	USPAT;	2002/12/23 12:04
			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
Ì _	223162	120/6 0010 0007/0	IBM_TDB	
İ	223102	Territorial of 2017 Tieces. and	USPAT;	2002/06/25 16:06
		@ad<=20010113	US-PGPUB;	
1			EPO; JPO;	
	ĺ		DERWENT;	
1_	35716	(429/6 22) 057/6	IBM_TDB	İ
	33/16	1 (100) 1 100±0. Of 20// 9.00±3. and	USPAT;	2002/02/14 14:15
		@ad<=20010113) and 'dielectric'	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	4864	///20/0 1- 057/0	IBM_TDB	ĺ
	4004		USPAT;	2002/02/14 14:12
		@ad<=20010113) and 'dielectric') and 'mosfet'	US-PGPUB;	
		MOSTEC	EPO; JPO;	
			DERWENT;	İ
_	1	(((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	
	1	(1(430/3.CCIS. OF 25//3.CCIS. and	USPAT;	2002/02/14 14:14
		<pre>@ad<=20010113) and 'dielectric') and 'mosfet') and 'group IV metal'</pre>	US-PGPUB;	
		mostet) and group IV metal.	EPO; JPO;	
			DERWENT;	
_	16571	(438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	
	10371	@ad<=20010113) and 'dielectric layer'	USPAT;	2002/02/14 14:21
		dad 20010113) and dielectric layer	US-PGPUB;	1
			EPO; JPO;	
			DERWENT;	
_	61	((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	1
	1	@ad<=20010113) and 'dielectric layer') and	USPAT;	2002/08/27 16:46
		'hafnium' and 'lanthanum'	US-PGPUB;	1
		Tarriam and ranchanam	EPO; JPO;	
			DERWENT;	
-	104	((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	0000/00/1
		@ad<=20010113) and 'dielectric') and	USPAT;	2002/02/14 14:25
	-	'hafnium' and 'lanthanum'	US-PGPUB;	i i
			EPO; JPO; DERWENT;	
			IBM TDB	
_	36	((438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/02/14 14 05
		@ad<=20010113) and 'dielectric') and		2002/02/14 14:26
		'amorphous oxide'	US-PGPUB; EPO; JPO;	
		-	DERWENT;	
			IBM TDB	
_	1	((438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/02/14 14 05
		@ad<=20010113) and 'dielectric') and	US-PGPUB;	2002/02/14 14:26
		'hafnium' and 'lanthanum' and 'amorphous	EPO; JPO;	1
		oxides'	DERWENT;	
			IBM TDB	
_	224025	438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/06/25 11:50
		@ad<=20010613	US-PGPUB;	. 2002/00/25 11:50
]		EPO; JPO;	1
	[DERWENT;	
			IBM TDB	
_	15	(438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/02/15 10:40
]	@ad<=20010613) and 'mosfet' and	US-PGPUB;	2002/02/15 10:49
]	'dielectric metal oxide'	EPO; JPO;	
			DERWENT;	
			IBM TDB	ļ

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	400	C / / 20 / A 2		
-	4906		USPAT;	2002/02/15 10:51
		<pre>@ad<=20010613) and 'mosfet' and 'dielectric'</pre>	US-PGPUB;	
		dielectric	EPO; JPO;	
			DERWENT;	
_	73	3 ((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	
	/-	@ad<=20010613) and 'mosfet' and	USPAT;	2002/06/25 15:23
		'dielectric') and 'hafnium'	US-PGPUB;	
		dictectic , and maintain	EPO; JPO;	
			DERWENT;	
-	24	(((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB USPAT;	2000/00/15 10 55
ļ		@ad<=20010613) and 'mosfet' and	US-PGPUB;	2002/02/15 10:55
	-	'dielectric') and 'hafnium') and	EPO; JPO;	
		'lanthanum'	DERWENT;	
			IBM TDB	İ
-	2	("6020024").PN.	USPAT;	2002/02/15 11:22
	Ì		US-PGPUB;	2002/02/13 11.22
			EPO; JPO;	
			DERWENT;	
1			IBM TDB	
-	4	("4432035").PN.	USPAT;	2002/02/15 13:44
İ			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	417	(257/411) 2272	IBM_TDB	
-	417	(257/411).CCLS.	USPAT;	2002/02/15 16:09
			US-PGPUB;	
			EPO; JPO;	
	ļ		DERWENT;	
_	5	(("257/411").CCLS.) and 'hafnium' and	IBM_TDB	
		'lanthanum'	USPAT;	2002/02/15 13:46
		Tancharan	US-PGPUB;	
			EPO; JPO; DERWENT;	
			IBM TDB	!
-	230368	438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/06/25 11:54
		@ad<=20010613	US-PGPUB;	2002/00/23 11:34
}			EPO; JPO;	
			DERWENT;	
	1		IBM TDB	
-	168	The street of Lot, 4. Colb. and	USPĀT;	2002/12/23 12:14
	ļ	@ad<=20010613) and 'hafnium' and	US-PGPUB;	
		'lanthanum'	EPO; JPO;	
-			DERWENT;	
_	2	(438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	1
	2	@ad<=20010613) and 'hafnium' and	USPAT;	2002/06/25 12:02
		'combining' with 'oxygen'	US-PGPUB;	1
		Combining with Oxygen	EPO; JPO;	
	1		DERWENT;	
-	91	(438/\$.ccls. or 257/\$.ccls. and	IBM_TDB USPAT;	2002/06/25 12 25
		@ad<=20010613) and 'hafnium' with	US-PGPUB;	2002/06/25 12:07
		'oxygen'	EPO; JPO;	
]	- 	DERWENT;	
			IBM TDB	
-	67	'hafnium' with 'reaction' with 'oxygen'	USPAT:	2002/06/25 12:32
		13011	US-PGPUB;	2002/00/25 12:32
	-		EPO; JPO;	
			DERWENT;	
			IBM TDB	
_	3	'hafnium oxide' near 'formation'	USPAT;	2002/06/25 12:33
	1		US-PGPUB;	
			EPO; JPO;	1
			DERWENT;	
_	58	//39/\$ gglg om 257/2	IBM_TDB	
	36	(438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/06/25 15:42
		<pre>@ad<=20010613) and 'silicon oxide' and 'hafnium' and 'lanthanum'</pre>	US-PGPUB;	
ĺ		nathram and ranthanum'	EPO; JPO;	
			DERWENT;	
	ــــــــــــــــــــــــــــــــــــــ		IBM_TDB	·

Search History 12/24/02 11:01:14 AM Page 3
C:\APPS\east\workspaces\Dielectric Formation or SOG\09881408 dielectric layer.wsp

199 1438/785).ccls. and @ad<=20010613 and			1400/6		
### with 'silicon oxide' 199 (438/785).ccls. and @ad<=20010613 USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: US=PGPUB; EPO; USPAT: U	-	51	(USPAT;	2002/06/25 13:42
DERMENN; INM TOB USEAT; CS-PEPUB; ESP; FOR USEAT; CS-PEPUB; ESP; FOR USEAT; CS-PEPUB; ESP; FOR USEAT; TEM TOB USEAT;				US-PGPUB;	:
199 (438/783).ccls. and @ad<-20010613 IBM TOB USEAR: CS-RCPUB; EPO; JPO; DERWENT; IBM TOB USEAR: USEA			with 'silicon oxide'	EPO; JPO;	
199 (438/785).ccls. and @ad<=20010613 USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; U				DERWENT;	
199 (438/785).ccls. and @ad<=20010613 USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; USF-PGUB; EFG; JFO; DGRWENT; IRM TOB USFAT; U					
CS-EGUUS SPO; JFG; JFG; JFG; JFG; JFG; JFG; JFG; JFG	_	199	$(438/785)$ ccls. and $4ad \le 20010613$		2002/06/25 14:02
SEPCY JPO: DERMENT; IBM TDB SEPC			(1007,7007,0018; and edax=20010015		2002/06/25 14:02
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TEM TDB					
1				DERWENT;	
Hef' SEPO; JPO; DERWENT; IBM TDB USPAT USPAT USPAT U				IBM TDB	
Hef' SEPO; JPO; DERWENT; IBM TDB USPAT USPAT USPAT U	-	51	((438/785).ccls. and @ad<=20010613) and	USPAT:	2002/06/25 14:05
Company Comp			'Hf'	US-PGPUB:	11,11,11
CERMENT: IBM TDB				· ·	
1		ļ			
Comparison of the comparison					
Hafnium'	-	32	1/438/785) cals and Bade-20010(12)		
## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("4432035").PN. ## ("3693629".PN. ## ("3819990".PN. ## ("3819990".PN. ## ("402749".PN. ## ("5106827".PN.		32			2002/06/25 14:06
-			'Hainium'		
-	ļ				
-		1		DERWENT:	
- 4 ("4432035").PN. USPAT; US-PGPUB; EPO; JPO; DERWENT; IFM TOB ITM TO					
1	-	4	("4432035").PN.		2002/06/25 14.22
PEO; JPO; DERWENT; IFM TDB PEO; JPO; DERWENT; IFM TDB USPAT 2002/06/25 14:33 2002/06/25 14:33 2002/06/25 14:33 1 "4227944".PN					2002/06/25 14:32
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TBM TDB					
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1			HO 500 500 H	IBM_TDB	
1	-			USPAT	2002/06/25 14:35
1	1 -	1		USPAT	
1	-	1	"4062749".PN.	1	
1 "\$106827".PN.	_	1			
1	_				
1	_	_		1	
1	_	_			2002/06/25 15:21
1		j		USPAT	2002/06/25 15:21
1	_	_		USPAT	
1	-	_		USPAT	2002/06/25 15:22
1			"6177361".PN.	USPAT	2002/06/25 15:22
1	-	1	"5824590".PN.		
1	-	1	"5773314".PN.		
90	_	1		1	
ead<=20010613) and 'mosfet' and 'dielectric') and 'hafnium' DERWENT; DERWENT; LBM TDB USPAT;	_	90			
dielectric') and 'hafnium'			Mad(=20010613) and Impafett		2002/06/25 16:05
DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB US-PGPUB; EPO; JPO; DERWENT; IBM_TDB US-PGPUB; EP			Idiologymial) and the factors	1	*
- 0 @ad<=20010613 and 'reduces' with 'silicon dioxide to silicon' - 1028 @ad<=20010613 and 'reduces' with 'silicon dioxide' with 'silicon' - 29 @ad<=20010613 and 'reduces' with 'silicon dioxide' with 'silicon' - 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' - 4 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' - 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 2002/06/25 15:47 2002/06/25 15:47 2002/06/25 15:47 2002/06/25 15:47 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55 - 2002/06/25 15:55 - 2002/06/25 15:55		İ	dielectic, and harnium.		
Cad<=20010613 and 'reduces' with 'silicon dioxide to silicon' USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPĀT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB;				DERWENT;	
dioxide to silicon'				IBM TDB	
dioxide to silicon'	-	0	@ad<=20010613 and 'reduces' with 'silicon	USPAT;	2002/06/25 15:44
1028			dioxide to silicon'		1 10.11
1028				EPO: IPO:	
- 1028 @ad<=20010613 and 'reduces' with 'silicon dioxide' with 'silicon' 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 2002/06/25 15:47 2002/06/25 15:47 2002/06/25 15:47 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55 2002/06/25 15:55					
Cad<=20010613 and 'reduces' with 'silicon dioxide' with 'silicon' USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; ISPO; JPO; DERWENT; JPO; DERWENT; JPO; DERWENT; JPO; DERWENT; JPO; DERWENT; JPO; DERWENT; JPO; DERWENT;					
dioxide' with 'silicon' - 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' - 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 2002/06/25 16:01 USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; ISM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; ISM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	-	1028	@ad<=20010613 and !reduces! with laili		2000/06/55 55
EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;		1020	dioxide! with !silicon!		2002/06/25 15:47
- 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; Oxide' USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;			atovine Mich Stilcou,	1	
- 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' - 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 2002/06/25 16:01 IBM TDB					1
- 29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' - 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' - 2002/06/25 16:01 IBM TDB	1		ĺ	DERWENT;	1
29 @ad<=20010613 and 'reduces' adj 'silicon dioxide' with 'silicon' USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; Oxide' USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	1] !]
dioxide' with 'silicon' 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 4 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 2002/06/25 15:55 US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	-	29	@ad<=20010613 and 'reduces' adj 'silicon		2002/06/25 16:01
- 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 1 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			dioxide' with 'silicon'	· ·	1 2002/00/25 10:01
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- 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide' 1			· ·		
- 4 @ad<=20010613 and 'hafnium' adj 'silicon dioxide'					
dioxide' US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; Oxide' US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;			And <- 20010 (12)		;
dloxide'		4	eaux=20010613 and 'hafnium' adj 'silicon	- ,	2002/06/25 15:55
- 1 @ad<=20010613 and 'hafnium' adj 'silicon oxide'			aloxide,	US-PGPUB;	
DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	ļ	}			ļ
- @ad<=20010613 and 'hafnium' adj 'silicon IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;					
1 @ad<=20010613 and 'hafnium' adj 'silicon USPĀT; US-PGPUB; EPO; JPO; DERWENT; DERWENT;					
oxide' US-PGPUB; EPO; JPO; DERWENT;	-	1	@ad<=20010613 and !hafnium! add !cilicate	_	2002/05/25 15 55
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9ad<=20010113 and 'high dielectric' US_FGVUB_ EPO, JPO, DERWENT, IBM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, IBM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, IBM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US_FGVUB_ EPO, JPO, DERWENT, ISM_TDB USPAT, US	-	126214		USPAT;	2002/06/25 16:09
124737 438/S.ccls. or 257/S.ccls. and DRRWBNT; IBM TDB Gad<-20010113 and 'high dielectric' and DRRWBNT; IBM TDB USPAT; U			@ad<=20010113 and 'high dielectric'		2002,00,25 10.09
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124737 438/\$.ccls. or 257/\$.ccls. and 124738 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 08:52 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 11:45 2002/07/11 09:01					
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'silicon oxide' and 'hafnium'	-	124737			2002/07/11 08:52
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31			'silicon oxide' and 'hafnium'	EPO; JPO;	
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Sed Sed	-	31	ead<=20010113 and 'PVD' with 'ion		2002/07/11 11:45
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393 8ad<=20010113 and 'high dielectric' and 'physical vapor deposition' or 'FVD' with 'Us-PGPUB; EPG; JPG; DERWENT; IEM TDB USPAT; US-PGPUB; EPG; JPG; DERWENT; IEM TDB USPAT; U					
393 @ad<-20010113 and 'high dielectric' and 'physical vapor deposition' or 'PVD' with 'lon bombarment' 2002/07/11 09:01					
'physical vapor deposition' or 'FVD' with SPG: JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: USPCPUB; PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: USPAT: USPAT: USPCPUB; EPO; JPO; DERWENT; IBM TDB USPAT: USPAC: USPAT: USPA	_	393	@ad<=20010113 and !high dielectric! and	· —	2000/07/11 00 01
'ion bombarment'			'physical vapor deposition' or 'pyp' with		2002/0//11 09:01
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393 @ad<=20010113 and 'high dielectric' and 'physical vapor deposition' or 'PVD' with 'ion bombarment energy' 2002/07/11 09:04 USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM TDB USPAT; USPGPUB; PGPUB; EPO, JPO; DERWENT; IBM TDB USPAT; US	İ		2011 DOMBGIMONE		
393 @ad<=20010113 and 'high dielectric' and 'physical vapor deposition' or 'PVD' with 'constant' 2002/07/11 09:04 2002/07/11 09:04 2002/07/11 09:04 2002/07/11 09:04 2002/07/11 09:04 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:08 2002/07/11 09:09 2002/		İ			
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13419			'physical vapor deposition' or 'PVD' with		2002/07/11 09:04
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Constant') and 'physical vapor deposition' US-PGPUB; EPO; JPO; DERWENT; ISM TDB USPAT; Constant') and 'physical vapor deposition' US-PGPUB; EPO; JPO; DERWENT; ISM TDB USPAT; Constant') and 'ion bombardment energy' US-PGPUB; EPO; JPO; DERWENT; ISM TDB USPAT; Constant') and 'physical vapor deposition' US-PGPUB; EPO; JPO; DERWENT; ISM TDB USPAT; CONSTANT') and 'ion bombardment' US-PGPUB; EPO; JPO; DERWENT; ISM TDB USPAT; US-PCPUB; EPO; JPO; DERWENT; IBM TDB USPAT; USPAT				IBM TDB	
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3 and 'ion bombardment'			constant') and 'physical vapor deposition'		2002/07/11 09:10
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- 1 "6020243".PN. 1 "6060755".PN. 1 "6060755".PN. 2 "6110784".PN. 6 @ad<=20010113 and 'hafnium' and 'PVD' and 'ion bombardment' and 'eV' - 3 @ad<=20010113 and 'hafnium' and 'PVD' and 'ion bombardment' and 'eV' - 4 @ad<=20010113 and 'hafnium' and 'PVD' and 'ion bombardment' and 'eV' - 5 @ad<=20010113 and 'hafnium' and 'PVD' and 'ion bombardment' and 'eV' - 5 @ad<=20010113 and 'hafnium' and 'PVD' and 'ion bombardment' and 'eV' - 6 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'eV' - 6 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'eV' - 7 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'eV' - 8 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'eV' - 8 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'eV' - 9 @ad<=20010113 and 'hafnium' and 'PVD' and 'Ion bombardment' and 'PVD' and 'Ion bombard	1]	1	"6020024".PN.	1	2002/07/11 10:01
1 "6110784".PN. 6 @ad<=20010113 and 'hafnium deposition' USPAT USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	_		"0UZUZ43".PN.		2002/07/11 10:01
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DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;		-			
- 22 @ad<=20010113 and 'hafnium' and 'PVD' and 'USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; ISPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;					
22 @ad<=20010113 and 'hafnium' and 'PVD' and 'USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; Ibm_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	İ				
'ion bombardment' Gad<=20010113 and 'hafnium' and 'PVD' and 'ISPAT; 'ion bombardment' and 'eV' US-PGPUB; EPO; JPO; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	-	22	@ad<=20010113 and !hafnium! and !DVD!	1 —	2002/07/22
- 3 @ad<=20010113 and 'hafnium' and 'PVD' and 'IBM TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; DERWENT; US-PGPUB; EPO; JPO; DERWENT;	1		'ion bombardment'		2002/07/11 11:52
Gad<=20010113 and 'hafnium' and 'PVD' and 'IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT;	[i				
- 3 @ad<=20010113 and 'hafnium' and 'PVD' and 'USPAT; US-PGPUB; EPO; JPO; DERWENT;				1	1
3 @ad<=20010113 and 'hafnium' and 'PVD' and USPAT; 2002/07/11 11:51 US-PGPUB; EPO; JPO; DERWENT;				·	
'ion bombardment' and 'eV' US-PGPUB; EPO; JPO; DERWENT;	-	3	@ad<=20010113 and 'hafnium' and 'PVD' and		2002/07/11 11.51
EPO; JPO; DERWENT;			'ion bombardment' and 'eV'		2002/0//11 11:31
DERWENT;					
					ĺ
	<u> </u>				

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-	3	@ad<=20010113 and 'hafnium' and	USPAT;	2002/07/11 13:13
		'sputtering' and 'ion bombardment' with	US-PGPUB;	-
	ĺ	'eV'	EPO; JPO;	1
			DERWENT;	
			IBM TDB	
-	53		USPAT;	2002/07/11 12:56
		and 'ion bombardment' with 'eV'	US-PGPUB;	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
-	0		USPĀT;	2002/07/23 12:13
		'sputtering' and 'ion bombardment' with	US-PGPUB;	2002/01/23 12.13
		'eV'	EPO; JPO;	
			DERWENT;	
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-	1	"4520413".PN.	USPAT	2002/07/11 13:08
_	1	"5930611".PN.	USPAT	2002/07/11 13:08
_	1		USPAT	2002/07/11 13:08
_	1		USPAT	2002/07/11 13:09
-	1		USPAT	2002/07/11 13:11
-	266		USPAT;	2002/07/11 13:12 2002/07/11 13:15
		'sputtering'	US-PGPUB;	2002/07/11 13:15
		1	EPO; JPO;	
-				
			DERWENT;	
_	22	@ad<=20010113 and 'hafnium' and 'PVD' and	IBM TDB	2202/27/22 12 22
		'ion bombardment'	USPAT;	2002/07/23 12:01
		TOTI DOMBATAMENT	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	22	@ad<=20010613 and 'hafnium' and 'PVD' and	IBM_TDB	
		'ion bombardment'	USPAT;	2002/07/23 12:09
		Ton bombardment	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	1	"4173661".PN.	IBM_TDB	
_	1	"5773363".PN.	USPAT	2002/07/23 12:08
_	5		USPAT	2002/07/23 12:08
		@ad<=20010613 and 'hafnium' and 'PVD' and 'ion bombardment' with 'energy'	USPAT;	2002/07/23 13:16
		Ton bombardment with tenergy.	US-PGPUB;	
			EPO; JPO;	
ł			DERWENT;	
_	6	@ad<=20010613 and 'PVD' and 'ion	IBM_TDB	
	-	bombardment' with 'eV'	USPAT;	2002/07/23 12:40
i		pourparquient, with .eA.	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	3	0.d<-20010C12 11 C : 1	IBM_TDB	
	3	<pre>@ad<=20010613 and 'hafnium' and 'ion bombardment' with 'eV'</pre>	USPAT;	2002/07/23 12:52
	Ì	pomparament, with .ev.	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	29	Mad<-20010613 and LDVD	IBM_TDB	
İ	29	<pre>@ad<=20010613 and 'PVD' and 'oxygen radical'</pre>	USPAT;	2002/07/23 12:38
	1	radical.	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
_	67	And 20010612	IBM_TDB	
1	67	@ad<=20010613 and 'sputter' and 'oxygen	USPAT;	2002/07/23 12:39
		radical'	US-PGPUB;	
1			EPO; JPO;	'
1			DERWENT;	İ
			IBM TDB	1
-	19	@ad<=20010613 and 'hafnium' and 'sputter'	USPĀT;	2002/07/23 12:50
		with 'eV'	US-PGPUB;	. == 22.33
	1		EPO; JPO;	
			DERWENT;	ļ
L	L		IBM TDB	

_		4 @ad<=20010613 and 'hafnium' and 'sputter'and 'oxygen radical' with 'eV'	USPAT; US-PGPUB;	2002/07/23 12:44
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-		@ad<=20010613 and 'hafnium' and 'I-PVD'	IBM_TDB USPAT;	2002/07/23 12:50
		with 'eV'	US-PGPUB;	2002/07/23 12:50
			EPO; JPO; DERWENT;	
_		@ad<=20010613 and 'hafnium' and 'Ionized'	IBM_TDB USPAT:	0000 (07 (07
		with 'eV'	US-PGPUB;	2002/07/23 12:50
			EPO; JPO; DERWENT;	
_	1 2		IBM_TDB	
		bombardment' and 'sputter' and 'eV'	USPAT; US-PGPUB;	2002/07/23 13:01
			EPO; JPO;	
	0.1.0		DERWENT; IBM TDB	
-	912	@dd<=20010613 and 'dielectric deposition'	USPAT; US-PGPUB;	2002/07/23 13:10
			EPO; JPO;	
			DERWENT; IBM TDB	
-	118	(@ad<=20010613 and 'dielectric deposition') and 'refractory metal'	USPAT;	2002/07/23 13:09
		asposition , and reflactory metal.	US-PGPUB; EPO; JPO;	
			DERWENT; IBM TDB	
-	0	Tread to to the did dielectic	USPAT;	2002/07/23 13:07
		<pre>deposition') and 'refractory metal') and 'sputter' with 'eV'</pre>	US-PGPUB; EPO; JPO;	
			DERWENT;	
_	1	1 //cam - 20010010 dild dielectif	IBM_TDB USPAT;	2002/07/23 13:09
	1	<pre>deposition') and 'refractory metal') and 'sputter' and 'eV'</pre>	US-PGPUB; EPO; JPO;	
		•	DERWENT;	
-	0	1 (caa coorday and drefective	IBM_TDB USPAT;	2002/07/23 13:09
		deposition') and 'refractory metal') and 'PVD' and 'eV'	US-PGPUB;	
			EPO; JPO; DERWENT;	
_	12	(@ad<=20010613 and 'dielectric	IBM_TDB USPAT;	2002/07/23 13:09
		deposition') and 'hafnium'	US-PGPUB;	2002/01/23 13:09
			EPO; JPO; DERWENT;	
_	0	@ad<=20010613 and 'hafnium deposition' and	IBM_TDB USPAT;	2002/07/22 12 14
	_	'PVD' and 'ion bombardment' with 'eV'	US-PGPUB;	2002/07/23 13:14
			EPO; JPO; DERWENT;	
_	0	@ad<=20010613 and 'hafnium deposition' and	IBM_TDB	
		'sputter' and 'ion bombardment' with 'eV'	USPAT; US-PGPUB;	2002/07/23 13:15
			EPO; JPO; DERWENT;	
-	6	And <- 20010612 and the fact of the fact o	IBM_TDB	
		@ad<=20010613 and 'hafnium deposition'	USPAT; US-PGPUB;	2002/07/23 13:15
			EPO; JPO;	
_		And <- 2001 0 C1 2	DERWENT; IBM_TDB	
	96	0ad<=20010613 and 'ion bombardment' with 'eV'	USPAT; US-PGPUB;	2002/07/23 13:19
			EPO; JPO;	
			DERWENT; IBM TDB	1

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-		,	3 (@ad<=20010613 and 'ion bombardment' with	USPAT;	2002/07/23 13:2
	İ		'eV') and 'hafnium'	US-PGPUB;	2002/07/23 13:2
	ŀ			EPO; JPO;	
	ł			DERWENT;	
_	1	2	? ("6399521").PN.	IBM_TDB	2000/07/15
				USPAT;	2002/07/23 14:3
				US-PGPUB;	ļ
				EPO; JPO;	
				DERWENT;	
-	1	78	((438/\$.ccls. or 257/\$.ccls. and	IBM_TDB	
	ļ		@ad<=20010113) and 'dielectric layer') and	USPAT;	2002/12/23 12:15
			'hafnium' and 'lanthanum'		
			zanenanan	EPO; JPO;	i
	İ			DERWENT;	1
-	· [79	(("438/722").CCLS.) and @ad<=20010613	IBM_TDB	
	Ì		(USPAT;	2002/12/23 12:15
	_			US-PGPUB;	1
				EPO; JPO;	
				DERWENT;	
-		229	(("438/785") CCIC)	IBM TDB	
	İ	227	(("438/785").CCLS.) and @ad<=20010613	USPAT;	2002/12/23 12:32
	j			US-PGPUB;	1 12.32
				EPO; JPO;	
	ŀ			DERWENT;	
	ľ	155	//8420/60	IBM TDB	
	ı	155	(("438/635").CCLS.) and @ad<=20010613	USPAT;	2002/12/22 10 05
				US-PGPUB;	2002/12/23 12:07
	1			EPO; JPO;	J
	1			DERWENT;	
	j			IBM TDB	
		590	(("438/778").CCLS.) and @ad<=20010613		
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				EPO; JPO;]
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		369	(("438/758").CCLS.) and @ad<=20010613	IBM_TDB	
			, 11001, and edu -20010613	USPAT;	2002/12/23 12:08
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				DERWENT;	
	-	443	(("257/410").CCLS.) and @ad<=20010613	IBM_TDB	
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	İ	1		EPO; JPO;	
				DERWENT;	
		108	///30/6 001- 055//	IBM TDB	
		700	((438/\$.ccls. or 257/\$.ccls. and	USPAT;	2002/12/24 08:21
	1	1	@ad<=20010113) and 'dielectric layer') and	US-PGPUB;	2002/12/24 08:21
		1	'hafnium' and 'lanthanum'	EPO; JPO;	
	ĺ	1		DERWENT;	İ
				IBM TDB	İ
	1	16	(("438/785").CCLS.) and @ad<=20010613 and		
	1		'hafnium' and 'lanthanum'	USPAT;	2002/12/23 12:33
		- 1	Wall	US-PGPUB;	
				EPO; JPO;	ł
				DERWENT;	Į.
				IBM TDB	

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